# Article information:

Nanocellulose‐MXene Biomimetic Aerogels with Orientation‐Tunable Electromagnetic Interference Shielding Performance - Zeng - 2020 - Advanced Science - Wiley Online Library
<https://onlinelibrary.wiley.com/doi/10.1002/advs.202000979>

# Article summary:

1. MXene/CNF aerogels have been developed with an ultrahigh EMI shielding performance, reaching 74.6 or 35.5 dB at a density of 8.0 or 1.5 mg cm–3 respectively.

2. The normalized surface specific SE is up to 189 400 dB cm2 g–1, significantly exceeding that of other EMI shielding materials reported so far.

3. MXenes are terminated with surface functional groups (F, OH, and O), resulting in easy processability from their aqueous dispersion for the construction of high EMI shielding performance MXene-based architectures.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy as it provides evidence for its claims through references to previous research studies and experiments conducted by the authors themselves. The article also presents both sides of the argument equally, providing insights into potential risks associated with the use of MXene/CNF aerogels for EMI shielding applications such as their potential toxicity due to the presence of transition metal carbides and nitrides in them. However, there are some points that could be improved upon in terms of trustworthiness and reliability such as providing more detailed information about the experiments conducted by the authors and exploring counterarguments more thoroughly. Additionally, there is a lack of discussion on possible alternatives to MXene/CNF aerogels for EMI shielding applications which could provide further insight into this topic.

# Topics for further research:

* Alternatives to MXene/CNF aerogels for EMI shielding
* Potential toxicity of MXene/CNF aerogels
* Research studies on MXene/CNF aerogels for EMI shielding
* Advantages of MXene/CNF aerogels for EMI shielding
* Disadvantages of MXene/CNF aerogels for EMI shielding
* Experiments on MXene/CNF aerogels for EMI shielding

# Report location:

<https://www.fullpicture.app/item/a08ad81de89d213394b3d7bd07b5b910>